



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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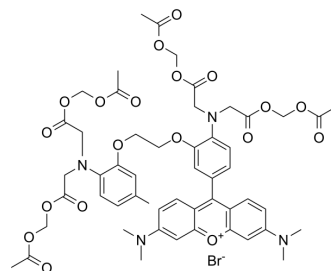
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## Rhod-2 AM

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-D0989   |
| <b>CAS No.:</b>           | 145037-81-6  |
| <b>Molecular Formula:</b> | C <sub>52</sub> H <sub>59</sub> BrN <sub>4</sub> O <sub>19</sub>   |
| <b>Molecular Weight:</b>  | 1123.94  |
| <b>Target:</b>            | Fluorescent Dye  |
| <b>Pathway:</b>           | Others   |
| <b>Storage:</b>           | -20°C, sealed storage, away from moisture and light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |



### BIOLOGICAL ACTIVITY

|                    |  |
|--------------------|--|
| <b>Description</b> | Rhod-2 is a high-affinity visible light excitation wavelength Ca <sup>2+</sup> fluorescent probe, Rhod-2, AM is an acetyl methyl ester derivative of Rhod-2, which has cell membrane permeability and can easily enter cells with simple culture. Once it enters the cell, it is sheared by its lactesterase to produce Rhod-2 without membrane permeability, which remains in the cell to perform the corresponding physiological functions. Maximum excitation/emission wavelength: 549/578 nm <sup>[1]</sup> .  |
| <b>In Vitro</b>    | <ol style="list-style-type: none"> <li>1.Preparation of Rhod-2 AM working solution           <ol style="list-style-type: none"> <li>1.1Preparation of the stock solution<br/>Dissolve Rhod-2 AM in DMSO to obtain 5 mM of stock solution.</li> <li>1.2Preparation of Rhod-2 AM working solution<br/>Dilute the stock solution in serum-free cell culture medium or PBS to obtain 5-10 μM of working solution.<br/>Note: Please adjust the concentration of Rhod-2 AM working solution according to the actual situation.</li> </ol> </li> <li>2.Cell staining (6-well plate)           <ol style="list-style-type: none"> <li>2.1Suspension cells               <ol style="list-style-type: none"> <li>a.Centrifuge at 1000 g at 4℃ for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.The cell density is 1×10<sup>6</sup>/mL.</li> <li>b.Add 1 mL of working solution, and then incubate at room temperature for 5-30 minutes.</li> <li>c.Centrifuge at 400 g at 4℃ for 3-4 minutes and then discard the supernatant.</li> <li>d.Wash twice with PBS, 5 minutes each time.</li> <li>e.Resuspend cells with serum-free cell culture medium or PBS. Observation by fluorescence microscopy or flow cytometry.</li> </ol> </li> <li>2.2 Adherent cells               <ol style="list-style-type: none"> <li>a.Culture adherent cells on sterile coverslips.</li> <li>b.Remove the coverslip from the medium and aspirate excess medium.</li> <li>c.Add 100 μL of working solution, gently shake it to completely cover the cells,and then incubate at room temperature for 5-30 minutes.</li> <li>d.Wash twice with medium, 5 minutes each time.Observation by fluorescence microscopy or flow cytometry.</li> </ol> </li> </ol> </li> </ol> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |

### PROTOCOL

#### Cell Assay <sup>[1]</sup>

For flow cytofluorometry, cells are harvested, pelleted, and resuspended in ice-cold PBS containing 10 mM glucose, 10% fetal bovine serum (FBS), and 10 μM Rhod-2 AM (Rhod2-AM). Mitochondrial calcium levels are determined by the flow

cytofluorometry analysis of aliquots of  $4 \times 10^5$  cells. For fluorescence microscopy, IMR5 cells are grown on polylysine-coated (10  $\mu\text{g}/\text{mL}$ ) slides and stained with 7.5  $\mu\text{M}$  Rhod-2 AM in Dulbecco's modified Eagle's medium (DMEM) supplemented with 10% FBS for 2 h before poliovirus (PV) infection. Cells are fixed by incubation for 15 min at 4°C in 4% paraformaldehyde. Cells are washed in PBS, and images are acquired with Zeiss Apotome and Axiovision software<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Environ Sci Technol. 2017 Dec 5;51(23):13938-13948.
- Cell Death Discov. 2021 Feb 10;7(1):31.
- Life Sci. 2024 Feb 14:122505.
- J Agric Food Chem. 2023 May 5.
- Clin Sci. 2023 Dec 7:CS20231039.

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## REFERENCES

- [1]. Brisac C, et al. Calcium flux between the endoplasmic reticulum and mitochondrion contributes to poliovirus-induced apoptosis. J Virol. 2010 Dec;84(23):12226-35.
- [2]. Brisac C, et al. Calcium flux between the endoplasmic reticulum and mitochondrion contributes to poliovirus-induced apoptosis. J Virol. 2010 Dec;84(23):12226-35.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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